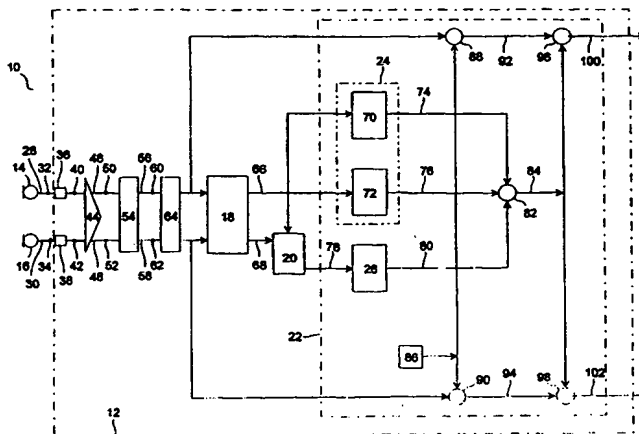




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04R	A2	(11) International Publication Number: WO 99/45741 (43) International Publication Date: 10 September 1999 (10.09.99)
(21) International Application Number: PCT/US99/04421 (22) International Filing Date: 1 March 1999 (01.03.99) (30) Priority Data: 60/076,443 2 March 1998 (02.03.98) US (71) Applicant (for all designated States except US): MWM ACOUSTICS, LLC [US/US]; Suite 105, 6602 E. 75th Street, Indianapolis, IN 46250 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): WELSH, Christopher, Todd [US/US]; 66 Chesterfield Drive, Noblesville, IN 46060 (US). McATEER, Jeffrey, Phillip [US/US]; 12915 Fawns Ridge, Fishers, IN 46039 (US). MICHEL, Alan, Dean [US/US]; 522 Concord Court, Fishers, IN 46038 (US). (74) Agents: STER, Brian, T. et al.; Ice Miller Donadio & Ryan, One American Square, P.O.Box 82001, Indianapolis, IN 46282 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>

(54) Title: DIRECTIONAL MICROPHONE SYSTEM**(57) Abstract**

A directional microphone system that utilizes multiple microphone elements combined to produce a monaural signal that substantially represents sound produced by a desired source is disclosed. The invention includes two or more microphone elements, a combining element and a cross-over portion. The microphone elements receive an acoustic energy composed of sound from a desired source, such as a talker, and sound from undesired background noise. The microphone elements convert the acoustic energy into two signals, respectively. The combining element then combines the two signals produced by the microphone elements into a combined signal. The cross-over portion of the invention includes a first filter for filtering the signal of one of the microphone elements, a second filter for filtering the combined signal, and a unifying element for combining the filtered signals to produce a monaural signal. The invention results in a monaural signal with an extended frequency bandwidth response, without the need for expensive, dedicated circuitry or matched microphone elements. In one embodiment of the invention, which is used in connection with a computer, the microphone elements are connected to the stereo inputs of the computer.

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